




COR-0992

NRO REVIEW COMPLETED

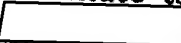
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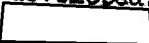
MEMORANDUM FOR : Deputy Director (Plans)
THROUGH : Acting Chief, DFD-DD/P 
SUBJECT : LMSD Stereo Proposal

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1. We have received a purely volunteer proposal from LMSD to provide 100 per cent stereo in the CORONA program. PIC, if forced to choose between a significant improvement in resolution vs full stereo, would prefer the latter, so I am told. I suspect LMSD may have concocted this as a side door entry to E-6.

2. The stereo provision could be obtained by either C, C', or C''' cameras; however, unless a mere one or two shot program is planned the present camera orders would have to be increased. Unless the C''' design fails it would be the obvious choice to give both stereo and improved resolution. LMSD estimate  total cost for two engineering and seven operational shots beginning nine months after start. This presumes cameras are GFE.

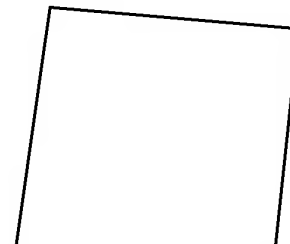
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3. This proposal assumes 2,450 pounds empty weight on 130 mile perigee orbit. This is 250 pounds above the advertised EWO of Thor DM-21/Agna B. I have not yet received data from Colonel Murphy to allow evaluation of this factor. The capsule film load is presumed to double to 80 pounds. If the present retro rocket cannot accommodate this increase, film load must be reduced or a new retro rocket developed. We know from past experience that a propellant change costs over  The recovery vehicle would require change in design unless the film load is limited to 60 pounds, or one and one-half (1½) days instead of two days supply. Camera operation is not proposed as synchronous; the necessity for synchronism must be evaluated.

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4. Our own cost analysis is as follows, based on past experience with the several contractors:

ITEK C''' cameras modified per pair
GE recovery capsules modified each
LMSD rework, new parts, tests
Total per launch (7 operational shots)



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These cost estimates presume no major redesign in recovery capsule and retro rocket change. If these become necessary, the unit cost could increase by

5. PIC now have this proposal for evaluation. I shall obtain from PIC/DPD-OPS, with advice from Reber, a value judgment on a full stereo system with its attendant operational limitations vs a mono system of the present C''' variety. If the limited system is unacceptable, then a stereo version of CORONA becomes more costly and probably later in time than indicated herein by LMED.

6. After our own homework is in order, it will be appropriate to examine this proposal in the light of E-6 with Joe Charyk.

SIGNED

EUGENE P. KIEFER
Chief, Technical Analysis Staff
DPD-DD/P

Attachment:

Proposal: A Convergent Stereoscopic Camera System COR-0989, cy 2 of 4

CH/TAS/DPD-DD/P:EPKIEFER:

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Distribution: Cy 1 & 2 - DD/P w/att
3 - A/CH/DPD wo/att
4 - CH/TAS/DPD wo/att
5 - RI/DPD wo/att

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